

District 07 Mobility Performance Report

2018 Third Quarter

DEPARTMENT OF TRANSPORTATION
OFFICE OF SYSTEM MODELING, DATA COLLECTION AND ANALYSIS
DIVISION OF OPERATIONS

October 25, 2018
: Ashraf Armanious

District 07 Mobility Performance Report

2018 Third Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 7 contains two counties located in coastal southern California: Los Angeles and Ventura Counties. Both counties are urban, with Los Angeles being the most populous county in the United States with almost 10.2 million residents. Ventura County has a population of 856,500. Although these are urban counties, they do contain a large amount of sparsely populated National Forest and National Recreation Area.

The Mobility Performance quarterly analysis compares information with over a year ago and over last quarter in the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD), Bottleneck Locations
- Lost Lane Miles (equivalent lost productivity)
- Detection Health

This report is based on daily data collected, 24 hours a day, by automated vehicle detector stations deployed on urban-area freeways where congestion is regularly experienced. The MPR presents congestion information at two speed thresholds: delay from vehicles traveling below 60 miles per hour (mph), and delay from vehicles traveling below 35 mph. The delay at the 35 mph threshold represents severe congestion while delay at 60 mph represents all congestion, both light and heavy. These thresholds are set by Caltrans and are based on engineering experience and District input.

FINDINGS

In this quarter (July 2018 – September 2018), the total delay at the 35 mph speed threshold equaled 16.5 million vehicle hours of delay (VHD). Out of which only 3 percent of this delay are generated in Ventura County and 97 percent are generated in Los Angeles County. Whereas about 46 percent of the Los Angeles county delays are generated from only three freeways (I-405, US-101, I-10). This total delay is 1.1 percent higher than the previous quarter (2018-Q2).

Similarly, total delay at the 60 mph speed threshold equaled 35.2 million vehicle hours of delay (VHD), an increase of 1.0 percent over previous Quarter.

Vehicle Miles Traveled within district 7 in this quarter was 9.7 Billion Miles an increase of 100 Million Miles (1.1 percent) over previous quarter.

The average weekday daily delay in this quarter was approximately 228 thousand VHD at 35 mph and 475 thousand VHD at 60 mph threshold. Thursdays then Fridays are the most congested days of the week, with Peak hours extend from 6:00 am to 9:30 am and from 2:30 pm to 7:00 pm. Peak hour in the weekend (Saturday and Sunday) is generally between 12:00 pm and 5:00 pm.

Top Ten Bottlenecks for the 2018 Third Quarter:

Rank	Fwy	Location	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (Hrs)
1	I405-S	HOWARD HUGHES PKWY	PM	48.672	24.9	63	5.7	305,494	3.9
2	I405-N	NORDHOFF	PM	68.642	44.87	63	6.9	293,901	4.5
3	I10-E	HOOVER 2	PM	12.215	14.37	63	5.3	275,911	2.8
4	I405-N	PALMS BLVD	AM	52.312	28.54	62	6.5	215,718	2.2
5	I605-S	TELEGRAPH	PM	12.412	R10.36	63	4.9	213,573	4.2
6	US101-S	GAREY STREET	PM	1.798	.45	63	5.7	197,165	3.8
7	I105-E	LONG BEACH 2	PM	11.9	R11.9	63	4.9	183,807	4.8
8	I405-S	GETTY - SEPULVEDA	AM	58.502	34.73	63	6.0	174,131	3.1
9	I110-N	ADAMS	AM	20.53	20.6	62	4.4	169,958	3.1
10	SR57-N	N-O PATHFINDER	PM	15.797	R3.98	63	3.9	152,094	4.8

Project Status:

The Following D7 Projects are currently being constructed or are scheduled for construction. These current or future (planned) projects will relieve congestion in D7.

LA 10: WIDEN FREEWAY, CONSTRUCT HIGH OCCUPANCY VEHICLE (HOV) LANES; EA 1193U (Segment 3)

In LA County from Citrus Ave. in West Covina to SR-57 in Pomona. Constructing one HOV lane in each direction. The proposed typical half section consists of an 8-foot inside shoulder, 12-foot HOV lane, 12-foot inside mixed-flow lane, three 12-foot mixed-flow lanes and a 10-foot outside

LA 10: WIDEN FREEWAY, CONSTRUCT HIGH OCCUPANCY VEHICLE (HOV) LANES; EA 1170U (Segment 2)

In LA County from Puente Ave in city of Baldwin Park to Citrus St. in West Covina. This project proposes to reduce traffic congestion on the I-10 by constructing one HOV lane in each direction from Puente Avenue to Citrus Avenue. The proposed typical half section consists of an 8-foot inside shoulder, 12-foot HOV lane, 12-foot inside mixed-flow lane, three 12-foot mixed-flow lanes and a 10-foot outside shoulder.

LA 405: IN LOS ANGELES COUNTY, FROM I-10 TO US101 WIDEN FOR HOV LANE; EA 12030

Widen the existing northbound 405. This project will provide continuous Carpool lanes on I-405 by closing the last gap.

LA 101: IN LOS ANGELES COUNTY, ON SOUTHBOUND US-101, BETWEEN LANKERSHIM BLVD OFF-RAMP AND BARHAM BLVD OFF-RAMP; EA 29920

- Construct a new southbound (SB) on-ramp from Universal Studios Boulevard (USB).
- Improve freeway operation by shifting and widening SB US-101 to extend the existing two-lane portion of the Lankershim/Regal on-ramp.
- Modify freeway geometric designs to improve stopping sight distance in the area of the new USB SB on-ramp.
- Eliminate undesirable weaving situation by closing the existing SB Barham/Bennett off-ramp while retaining the existing SB Barham/Bennett on-ramp for safety.

TRANSPORTATION MANAGEMENT SYSTEM PROJECTS TO UPGRADE THE EXISTING COMMUNICATION SYSTEMS.

- LA 105: IN LOS ANGELES COUNTY, FROM CALIFORNIA STREET AND IMPERIAL HIGHWAY TO STUDEBAKER ROAD; EA 30460
- LA 605: FROM LA COUNTY LINE TO RTE. 210; EA 31190
- LA 110: BETWEEN SR-47 and I-5; EA 31200

This list of ongoing or planned projects is only a partial list, please contact CALTRANS for more details.

Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2017</td><td>9.6</td></tr> <tr><td>2018</td><td>9.6</td></tr> <tr><td>2018</td><td>9.7</td></tr> </table>	Year	Q3	2017	9.6	2018	9.6	2018	9.7	Over one year ago	Over last quarter
		Year	Q3								
2017	9.6										
2018	9.6										
2018	9.7										
		0.5% ↑	1.1% ↑								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2017</td><td>16</td></tr> <tr><td>2018</td><td>16.5</td></tr> <tr><td>2018</td><td>16.5</td></tr> </table>	Year	Q3	2017	16	2018	16.5	2018	16.5	Over one year ago	Over last quarter
		Year	Q3								
2017	16										
2018	16.5										
2018	16.5										
		3% ↑	0.3% ↑								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2017</td><td>222</td></tr> <tr><td>2018</td><td>224</td></tr> <tr><td>2018</td><td>228</td></tr> </table>	Year	Q3	2017	222	2018	224	2018	228	Over one year ago	Over last quarter
		Year	Q3								
2017	222										
2018	224										
2018	228										
		2.9% ↑	2% ↑								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2017</td><td>34.4</td></tr> <tr><td>2018</td><td>34.8</td></tr> <tr><td>2018</td><td>35.2</td></tr> </table>	Year	Q3	2017	34.4	2018	34.8	2018	35.2	Over one year ago	Over last quarter
		Year	Q3								
2017	34.4										
2018	34.8										
2018	35.2										
		2.3% ↑	1% ↑								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2017</td><td>464</td></tr> <tr><td>2018</td><td>462</td></tr> <tr><td>2018</td><td>475</td></tr> </table>	Year	Q3	2017	464	2018	462	2018	475	Over one year ago	Over last quarter
		Year	Q3								
2017	464										
2018	462										
2018	475										
		2.4% ↑	2.7% ↑								

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph	<p>Hours (Thousands)</p> <p>■ 2017 Q3 ■ 2018 Q2 ■ 2018 Q3</p> <p>Mon Tue Wed Thu Fri Sat Sun/Hol</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Tuesday -3.6% ↓	Sun/Hol -8.5% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Wednesday 7.6% ↑	Wednesday 8.4% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays	<p>Hours (Thousands)</p> <p>— Weekday (2017 Q3) — Weekday (2018 Q2) — Weekday (2018 Q3)</p> <p>Hour of Day</p>	Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter
		6 AM -4.1% ↓	4 PM -5.1% ↓
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		9 AM 6.6% ↑	7 PM 29.6% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays	<p>Hours (Thousands)</p> <p>— Saturday (2017 Q3) — Saturday (2018 Q2) — Saturday (2018 Q3)</p> <p>Hour of Day</p>	Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		7 AM -29.9% ↓	3 PM -11% ↓
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		11 AM 17.4% ↑	6 PM 16.7% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays	<p>Hours (Thousands)</p> <p>— Sunday/Holiday (2017 Q3) — Sunday/Holiday (2018 Q2) — Sunday/Holiday (2018 Q3)</p> <p>Hour of Day</p>	Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter
		7 AM -44% ↓	3 PM -20.6% ↓
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		1 PM 30.5% ↑	6 PM 24.4% ↑

Measure	Graph	Percentage Change		
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter	m
		-	Ventura -2.6%	
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter	
		Los Angeles 2.7%	Los Angeles 0.4%	
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter	ac num
		-	-	
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter	
		PM Peak 3.9%	AM Peak 2.6%	
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter	
		9%	3%	
		Change in Bad over one year ago	Change in Bad over last quarter	
		-10%	-3%	

Congestion by Route

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2018 Q3-2017 Q3		Difference 2018 Q3-2018 Q2		Rank		
		2017 Q3	2018 Q2	2018 Q3	Absolute	Percentage	Absolute	Percentage	2017 Q3	2018 Q2	2018 Q3
		I-405	Los Angeles	3,609,633	3,245,725	3,460,342	-149,291	-4.1%	214,617	6.6%	1
US-101	Los Angeles	1,663,150	2,514,573	2,475,506	812,356	48.8%	-39,067	-1.6%	3	2	2
I-10	Los Angeles	1,494,186	1,581,466	1,629,066	134,880	9.0%	47,600	3.0%	4	3	3
I-5	Los Angeles	1,802,994	1,503,653	1,537,846	-265,148	-14.7%	34,194	2.3%	2	4	4
I-110	Los Angeles	1,231,873	1,168,430	1,135,424	-96,449	-7.8%	-33,007	-2.8%	5	5	5
I-605	Los Angeles	948,592	956,115	987,974	39,382	4.2%	31,859	3.3%	7	7	6
I-210	Los Angeles	1,083,218	1,045,676	951,264	-131,954	-12.2%	-94,412	-9.0%	6	6	7
I-105	Los Angeles	536,993	768,060	714,231	177,238	33.0%	-53,829	-7.0%	10	8	8
SR-91	Los Angeles	570,013	592,062	701,360	131,347	23.0%	109,298	18.5%	9	10	9
SR-60	Los Angeles	818,969	757,113	676,062	-142,907	-17.4%	-81,051	-10.7%	8	9	10
I-710	Los Angeles	456,571	568,728	477,045	20,475	4.5%	-91,682	-16.1%	11	11	11
US-101	Ventura	363,041	390,317	376,706	13,665	3.8%	-13,611	-3.5%	13	12	12
SR-134	Los Angeles	382,407	365,425	348,762	-33,646	-8.8%	-16,663	-4.6%	12	13	13
SR-57	Los Angeles	180,528	265,014	346,293	165,765	91.8%	81,279	30.7%	16	14	14
SR-170	Los Angeles	293,319	219,055	203,441	-89,878	-30.6%	-15,614	-7.1%	14	15	15
SR-14	Los Angeles	231,382	187,690	172,308	-59,074	-25.5%	-15,382	-8.2%	15	16	16
SR-118	Los Angeles	168,723	81,781	114,993	-53,731	-31.8%	33,212	40.6%	17	18	17
SR-2	Los Angeles	88,781	84,131	74,302	-14,480	-16.3%	-9,829	-11.7%	18	17	18
SR-23	Ventura	40,894	56,101	60,431	19,537	47.8%	4,329	7.7%	20	19	19
SR-118	Ventura	8,771	50,614	46,737	37,966	432.9%	-3,877	-7.7%	21	20	20
SR-71	Los Angeles	49,456	49,617	14,136	-35,320	-71.4%	-35,482	-71.5%	19	21	21
SR-47	Los Angeles	4,179	7,787	8,656	4,478	107.2%	870	11.2%	22	22	22
SR-90	Los Angeles	436	597	1,875	1,439	330.4%	1,278	213.9%	24	23	23
SR-126	Los Angeles	1,248	1	1	-1,248	-99.9%	0	-22.2%	23	24	24
TOTALS		16,029,356	16,459,728	16,514,758	485,402	3.0%	55,030	0.3%			